

REMARKS

In the amendments above, Claim 1 has been amended to more particularly point out and distinctly claim the invention.

Abstract

In the Office Action dated October 30, 2007, the Examiner objected to the format of the Abstract. The Examiner's attention is directed to the amendments above, where the Abstract has been amended accordingly.

35 U.S.C. § 102(b) Rejection

Claim 1 has been rejected under 35 U.S.C. § 102 (b) as being anticipated by Houot, U.S. Patent No. 3,889,307 ("Houot"). The Examiner maintains that Houot discloses tidal wave power plants comprising a float, a ballast, chain or cable for connecting both said float and ballast, a recovery device inside the float having an input shaft, a rotating housing, said drum rotates to wind and unwind the cable in response to the wave to produce electrical energy through an electrical generator.

Applicant initially points out that anticipation requires that each and every element of the claims be disclosed, either expressly or inherently, in a single prior art reference or embodied in a single prior art device or practice. *See In re Paulsen*, 30 F.3d 1475, 1478 (Fed. Cir. 1994); *Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed. Cir. 1992). There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of invention. *See Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991). A finding of anticipation "is not supportable if it is necessary to prove facts beyond those disclosed in the reference in order to meet the claim limitations." *Id.*

Applicant notes that Houot discloses an immersed buoy that makes it possible to connect an object placed on the ocean floor to the surface by means of a wire rope.

Houot further discloses a removable electric motor which is used to wind the rope on its drum to bring the buoy to the immersed position. According to Houot, in the immersed position, the buoy is latched on a spherical head at which the end of the wire rope is attached, the wire rope is wound on the drum and a locking and release sleeve is in the high position thereby locking tumblers on the head (see Column 5, lines 6-11).

The Examiner maintains that Houot teaches a tidal wave power plant wherein the drum rotates to wind and unwind the cable in response to the wave to produce electrical energy. Applicant points out that Houot does not teach or suggest a conformation wherein the drum rotates in response to the ascent and descent of the waves. On the contrary, Houot teaches an underwater buoy, which remains in an immersed position latched on the spherical head.

While remaining in the immersed position, the wire rope of Houot is wound on the drum (see Column 6, lines 14-16), and consequently, neither the drum nor the buoy move in response to the ascent and descent of the wave. After reception of a release signal, the buoy comes up to the surface by simple buoyancy, so that the wire rope unwinds from the drum in response to buoyancy and not in response to the ascent and descent of the wave (see Column 2, lines 37-40).

The Examiner maintains that Houot teaches an electrical generator effective to produce electrical energy. However, Houot only teaches a buoy comprising an electrical motor. Nothing in Houot suggests that such a motor works as an electrical generator. In fact, Houot teaches that the motor is installed and energized to lower the buoy and drive the drum through a vertical shaft (see Column 5, lines 60 to 62). Furthermore, the electrical motor is recovered by pulling on the electric cable when the buoy has been lowered, so that when coming up to the surface, no electrical energy can be produced (see Column 6, lines 9 to 11).

Thus, with respect to independent Claim 1, Houot fails to teach or suggest an “*energy generating system*” wherein the energy generating system includes “. . . a floating

body (1) which moves to produce energy in response to the ascent and descent of the wave . . . " and ". . . means for converting the movement of said floating body (1) into mechanical energy when said floating body moves in response to the ascent and descent of the waves . . . "

35 U.S.C. § 103(a) Rejections

Claims 1-3, 8-10, and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Youngblood, U.S. Patent No. 5,359,229 ("Youngblood") in view of Houot. The Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to locate the rotating housing of Youngblood inside the float chamber of Houot for the purpose of achieving a compact structure.

Youngblood discloses an apparatus with a series of conversion units interconnected to provide continuous rotation of a drive shaft that is connected to an electrical generator. Each conversion unit is comprised of a pylon held in a fixed position relative to the surface of the water. Attached to the pylon is a float which rises and falls with the rise and fall of waves on the surface of the body of water. A drum is mounted to the drive shaft. The float is connected to the drum through a first cable means. A counterweight is connected to the same drum through a second cable means (see Column 1, lines 28 to 60).

According to Youngblood, in operation the float rises in response to a wave crest. As the float rises, the counterweight falls under the influence of gravity. The downward motion of the counterweight is transferred to the drum through the counter-weight cable in a direction which does not cause the drive shaft to rotate. Thus, no electrical energy is produced when raising the float in response to a wave crest (see Column 5, lines 65 to 68, and Column 6, line 8).

As the wave passes, the float falls under the influence of gravity. This downward motion of the float is transmitted through the float cable to the drum, causing the drum to rotate and the drive shaft to rotate to produce electrical energy (see Column 6, lines 9 to 19).

Youngblood fails to disclose a drum or housing which rotates under the action of a float cable to produce energy when the floating body ascends due to the ascent of the wave. In contradistinction, the drum as taught by Youngblood rotates under the action of said float cable to produce energy when the floating body descends.

Thus, with respect to independent Claim 1, Youngblood fails to teach or suggest an “*energy generating system*” wherein “*... said housing (10) rotates under the action of said wound float cable or chain (4), when said floating body (1) ascends due to the ascent of the wave.*”

The Examiner maintains that Youngblood discloses a tidal wave power plant comprising a recovery device with a rotating housing to wind up and unwind the cables to actuate the buoy to generate energy. Applicant notes that nothing in Youngblood teaches that the recovery device permits recovery of the float cable to an initial coiled position during the descent of the wave. In contradistinction, Youngblood teaches recovery of said float cable, during the ascent of the wave, when the float rises in response to the wave crest. Furthermore, unlike the recovery device of the present invention, the recovery device of Youngblood is situated outside the floating body.

Thus, with respect to independent Claim 1, Youngblood fails to teach or suggest an “*energy generating system*” wherein it includes “*... at least one recovery device, situated inside the floating body (1) that permits recovery of said float cable or chain (4) to its initial coiled position during the descent of the wave . . .*”

It would not have been obvious to one of ordinary skill in the art to combine the teachings of Youngblood with the teachings of Houot to arrive at the claimed invention. Youngblood does not teach a drum or rotating housing which rotates to produce energy

when the floating body ascends due to the ascent of the waves, nor does Youngblood teach a recovery device which permits recovery of the float cable during the descent of the wave.

As noted above, Houot does not teach a rotating housing which rotates in response to the ascent and descent of the waves, nor does Houot teach the production of electrical energy by means of an electrical motor when the immersed buoy comes up to the surface.

Furthermore, the teachings of Youngblood and Houot are not compatible. The drum of Youngblood is located in a fixed pylon with a top portion extending well above the surface of the water (see Column 3, lines 1 to 5), while the drum of Houot is located inside a buoy. In Youngblood, the provision of the pylon well above the surface of the water is necessary in order to allow the float cable to unwind on the drum or housing while the float falls under the influence of the gravity.

Accordingly, none of the references cited by the Examiner teach or suggest, either alone or in combination, the claimed invention as recited in independent Claim 1. In view of the remarks presented above, it is respectfully submitted that independent Claim 1 is patentable over the cited references. Furthermore, as Claims 2 to 11 depend, either directly or indirectly from Claim 1, Applicant respectfully requests that the Examiner find the claims allowable.

Applicant notes the Quilico et al., Kaplan, and Tidwell references that were made of record. None of these references is believed to suggest or teach any aspect of Applicant's invention as claimed herein.

In view of the comments above and the amendments to the claims, Applicant respectfully urges the Examiner to withdraw the rejections of the claims under §102(b) and §103(a) and to find the claims allowable.

Reconsideration and allowance of all the claims herein are respectfully requested.

Respectfully submitted,

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